

PCT10

DATE: 08/06/2002 TIME: 12:45:43 RAW SEQUENCE LISTING PATENT APPLICATION: US/10/030,306

Input Set : A:\661926.txt

Output Set: N:\CRF3\08062002\J030306.raw

Does Not Comply Corrected Diskette Needed

3 <110> APPLICANT: Sagami Chemical Research Center, 6 <120> TITLE OF INVENTION: Human proteins having hydrophobic domains and DNAs encoding these proteins 9 <130> FILE REFERENCE: 661926 7 C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/030,306 C--> 11 <141> CURRENT FILING DATE: 2002-06-27 11 <150> PRIOR APPLICATION NUMBER: JP 11-194359 12 <151> PRIOR FILING DATE: 1999-07-08 14 <160> NUMBER OF SEQ ID NOS: 30 ERRORED SEQUENCES 1068 <210> SEQ ID NO: 25 1069 <211> LENGTH: 2150 1070 <212> TYPE: DNA 1071 <213> ORGANISM: Homo sapiens 1073 <220> FEATURE: 1074 <221> NAME/KEY: CDS 1075 <222> LOCATION: (32)...(1282) 52 1078 ggtttetgcg ggtgaggetg gegeeegtae c atg age gag geg gae ggg etg 1081 cga cag cgc cgg ccc ctg cgg ccg cag gtc gtc aca gac gat gat ggc 100 1082 Arg Gln Arg Arg Pro Leu Arg Pro Gln Val Val Thr Asp Asp Asp Gly 1084 cag gcc ccg gag gct aag gac ggc age tcc ttt agc ggc aga gtt ttc 148 1085 Gln Ala Pro Glu Ala Lys Asp Gly Ser Ser Phe Ser Gly Arg Val Phe 1087 cga gtg acc ttc ttg atg ctg gct gtt tct ctc acc gtt ccc ctg ctt 196 1088 Arg Val Thr Phe Leu Met Leu Ala Val Ser Leu Thr Val Pro Leu Leu 1090 gga gcc atg atg ctg ctg gaa tct cct ata gat cca cag cct ctc agc 244 1091 Gly Ala Met Met Leu Leu Glu Ser Pro Ile Asp Pro Gln Pro Leu Ser 1093 ttc aaa gaa ccc ccg ctc ttg ctt ggt gtt ctg cat cca aat acg aag 292 1094 Phe Lys Glu Pro Pro Leu Leu Gly Val Leu His Pro Asn Thr Lys 1096 ctg cga cag gca gaa agg ctg ttt gaa aat caa ctt gtt gga ccg gag 340

1097 Leu Arg Gln Ala Glu Arg Leu Phe Glu Asn Gln Leu Val Gly Pro Glu

90

1098

DATE: 08/06/2002 RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/030,306

DATE: 08/06/200
TIME: 12:45:44

Input Set : A:\661926.txt
Output Set: N:\CRF3\08062002\J030306.raw

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1101 105 gtg gta aaa ctt gaa aat ggt gaa atd gus Thr Ile Ala Arg Phe	
1101 105 1102 cgg gtc gta aaa ctt gaa aat ggt gaa ata gag acc att gee cay 1102 cgg gtc gta aaa ctt gaa aat ggt gaa ata gag acc att gee cay 1102 cgg gtc gta aaa ctt gaa aat ggt gaa ata gag acc att gee cay 1103 Arg Val Val Lys Leu Glu Asn Gly Glu Ile Glu Thr Ile Ala Arg Phe 130 135	484
1103 Arg Val Val Lys Led Gld Hor 130 125 1104 120 1105 ggt tcg ggc cct tgc aaa acc cga gat gat gag cct gtg tgt ggg aga 1105 ggt tcg ggc cct tgc aaa acc cga gat gat gap Clu Pro Val Cys Gly Arg	402
1104 120 1105 ggt tcg ggc cct tgc aaa acc cga gat gat gag cct gtg tgc gyr 1105 ggt tcg ggc cct tgc aaa acc cga gat gat gag cct gtg tgc gyr 1106 gly Ser Gly Pro Cys Lys Thr Arg Asp Asp Glu Pro Val Cys Gly Arg 145 140 140 140 140 147 147 148 149 140	
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1106 Gly Ser Gly pro Cys Lys 145 140 1107 1108 ccc ctg ggt atc cgt gca ggg ccc aat ggg act ctc ttt gtg gcc gat 1108 ccc ctg ggt atc cgt gca ggg ccc aat ggg act ctc ttt gtg gcc gat 1108 ccc ctg ggt atc cgt gca ggg ccc aat ggg act ctc ttt gtg gcc gat 1108 ccc ctg ggt atc cgt gca ggg ccc aat ggg act ctc ttt gtg gcc gat 1108 ccc ctg ggt atc cgt gca ggg ccc aat ggg act ctc ttt gtg gcc gat	34-
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1100 Pro Leu Gly Ile Arg Ala Gly Plo Ash 017	580
1109 Pro Leu Gly He Arg Ard 537 160 163 qtg aaa qtg aaa 1110 155 1111 gca tac aag gga cta ttt gaa gta aat ccc tgg aaa cgt gaa qtg aaa 1111 gca tac aag gga cta ttt gaa gta aat ccc tgg aaa cgt gaa qtg aaa 1111 gca tac aag gga cta ttt gaa gta aat ccc tgg aaa cgt gaa qtg aaa 1111 gca tac aag gga cta ttt gaa gta aat ccc tgg aaa cgt gaa qtg aaa 1110 1100 1100 1100 1100 1100 1100	
1110 1110 1111 gca tac aag gga cta ttt gaa gta aat ccc tgg aaa cgt gdd 459 1111 gca tac aag gga cta ttt gaa gta aat ccc tgg aaa cgt gdd 459 1111 gca tac aag gga cta ttt gaa gta aat ccc tgg aaa cgt gdd 459 1111 Ala Tyr Lys Gly Leu Phe Glu Val Asn Pro Trp Lys Arg Glu Val Lys 170 170 170 170 170 170 170 17	
1110 Ala Tyr Lys Gly Leu Phe Glu val hou 180	628
1113 170 and coc att gag ggg aag aac atg too the	
1112 Ala Tyr Lys Gly Led Tho 175 175 1113 170 175 1114 ctg ctg ctg tcc tcc gag aca ccc att gag ggg aag aac atg tcc ttt 1114 ctg ctg ctg tcc tcc gag aca ccc att gag ggg aag aac atg tcc ttt 1114 ctg ctg ctg tcc tcc gag aca ccc att gag ggg aag aac atg tcc ttt	
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1116 185 act cag gat ggg agg aag att tat tie des	
1115 Leu Leu Leu Ser Ser Grace 190 1116 185 1117 gtg aat gat ctt aca gtc act cag gat ggg agg aag att tat ttc acc 1118 Val Asn Asp Leu Thr Val Thr Gln Asp Gly Arg Lys Ile Tyr Phe Thr 210 205	
1118 Val Asn Asp Leu Thr Val IIII 3205	724
1118 Val Asn Asp Leu IIII Val 200 205 1119 200 1120 gat tot ago ago aaa tgg caa aga cga gao tao ctg ctt ctg gtg atg 1120 gat tot ago ago aaa tgg caa aga cga gao tao ctg ctt ctg gtg atg 1120 gat tot ago ago aaa tgg caa aga cga gao tao ctg ctt ctg gtg atg	
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1121 Asp Ser Ser Ser 320	772
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1125 233 24t tta ttg gac cag ctg cgg ttc ccg add 934 Val Gln	
1124 Glu Gly Thr Asp Asp Gl 240 1125 1126 gaa gta aaa gtt tta ttg gac cag ctg cgg ttc ccg aat gga gtc cag 1127 Glu Val Lys Val Leu Leu Asp Gln Leu Arg Phe Pro Asn Gly Val Gln 250 250 250 250 250 250 250 25	- 60
1127 Glu Vai Lys va 255	868
1128 250 1129 ctg tct cct gca gaa gac ttt gtc ctg gtg gca gaa dca dcc de Ala 1129 ctg tct cct gca gaa gac ttt gtc ctg gtg gca gaa dca dcc de Ala 1129 ctg tct cct gca gaa gac ttt gtc ctg gtg gca gaa dca dcc de Ala 1129 ctg tct cct gca gaa gca gaa dca dcc de Ala 1129 ctg tct cct gca gaa gca gca gaa dca dcc de Ala 1129 ctg tct cct gca gaa gca gca gaa dca dcc de Ala 1129 ctg tct cct gca gaa gca gca gaa dca dcc de Ala 1129 ctg tct cct gca gaa gca gca gaa dca dcc de Ala 1129 ctg tct cct gca gaa gac ttt gtc ctg gtg gca gaa dca dcc de Ala 1129 ctg tct cct gca gaa gca gca gaa dca dcc dcc de Ala 1129 ctg tct cct gca gaa gac ttt gtc ctg gtg gca gaa dca dcc dcc de Ala 1129 ctg tct cct gca gaa gac ttt gtc ctg gtg gca gaa dca dcc dcc de Ala 1129 ctg tct cct gca gaa gac ttt gtc ctg gtg gca gaa dca dcc dcc dcc dcc dcc dcc dcc dcc d	
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1130 Leu Ser Pro Ala Giu Asp 270 1131 265 270 1132 agg ata cga aga gtc tac gtt tct ggc ctg atg aag ggc ggg gct gat 1132 agg ata cga aga gtc tac gtt tct ggc ctg atg aag ggc ggg gct gat 1132 agg ata cga aga gtc tac gtt tct ggc ctg atg aag ggc ggg gct gat 1132 agg ata cga aga gtc tac gtt tct ggc ctg atg aag ggc ggg gct gat	910
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1135 Cty the Val Glu Asn Met Pro Gly Phe 110 111	1012
1136 Led File 300	1012
1136 Leu Phe Val Glu Ash Nee 305 300 1137 1138 agc tct ggg ggg tac tgg gtg ggc atg tcg acc atc cgc cct aac cct 1138 agc tct ggg ggg tac tgg gtg ggc atg tcg acc atc cgc cct aac cct 1138 agc tct ggg ggg tac tgg gtg ggc atg tcg acc atc cgc cct aac cct 1139 Ser Ser Gly Gly Tyr Trp Val Gly Met Ser Thr Ile Arg Pro Asn Pro 1139 Ser Ser Gly Gly Tyr Trp Val Gly Met Ser Thr Ile Arg Pro Asn Pro 1139 Ser Ser Gly Gly Tyr Trp Val Gly Met Ser Thr Ile Arg Pro Asn Pro 1139 Ser Ser Gly Gly Tyr Trp Val Gly Met Ser Thr Ile Arg Pro Asn Pro 1139 Ser Ser Gly Gly Tyr Trp Val Gly Met Ser Thr Ile Arg Pro Asn Pro 1139 Ser Ser Gly Gly Tyr Trp Val Gly Met Ser Thr Ile Arg Pro Asn Pro 1139 Ser Ser Gly Gly Tyr Trp Val Gly Met Ser Thr Ile Arg Pro Asn Pro 1139 Ser Ser Gly Gly Tyr Trp Val Gly Met Ser Thr Ile Arg Pro Asn Pro 1139 Ser Ser Gly Gly Tyr Trp Val Gly Met Ser Thr Ile Arg Pro Asn Pro 1139 Ser Ser Gly Gly Tyr Trp Val Gly Met Ser Thr Ile Arg Pro Asn Pro	
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Input Set : A:\661926.txt
Output Set: N:\CRF3\08062002\J030306.raw

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1149 360 1150 agc ctg cat gat ccc gat ggg ctg gtg gcc acc tac atc age gar val 1150 ser Leu His Asp Pro Asp Gly Leu Val Ala Thr Tyr Ile Ser Glu Val 1151 Ser Leu His Asp Pro Asp Gly Leu Val Ala Thr Tyr Ile Ser Glu Val 380	1252
1152 380 to the tag ago tot the agg toe coe the	1232
1151 Ser Leu HIS ASP 120 385 1152 380 1153 cac gaa cac gat ggg cac ctg tac ctg ggc tct ttc agg tcc ccc ttc 1153 cac gaa cac gat ggg cac ctg tac ctg ggc tct ttc agg tcc ccc ttc 1154 His Glu His Asp Gly His Leu Tyr Leu Gly Ser Phe Arg Ser Pro Phe 1154 His Glu His Asp Gly His Leu Tyr Leu Gly Ser Phe Arg Ser Pro Phe 1155 400 400	
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1155 395 agt gtt tagccctccc agatagctgc C	1300
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1495 Glu Tip Gly Oli 20 20 1496 1497 qgg cgc atc cac cgg ctg gcg ctg acg ggg gag aag cga gcg gac atc 1497 qgg cgc atc cac cgg ctg gcg ctg acg ggg gag aag cga gcg gac atc	
1496 1497 qgg cgc atc cac cgg ctg gcg ctg acg ggg gag dag cgd gog le 1497 qgg cgc atc cac cgg ctg gcg ctg acg ggg gag dag cgd gog le 1498 Gly Arg Ile His Arg Leu Ala Leu Thr Gly Glu Lys Arg Ala Asp Ile 1498 Gly Arg Ile His Arg Leu Ala Leu Thr Gly Glu Lys Arg Ala Asp Ile 1498 Gly Arg Ile His Arg Leu Ala Leu Thr Gly Glu Lys Arg Ala Asp Ile	
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1501 Gln Leu ASh Sei The 327 55	241
1501 GIN Led ASH 557 55 55 1502 50 50 50 55 55 1502 50 50 50 50 50 50 50 50 50 50 50 50 50	
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Input Set : A:\661926.txt
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Output Set: N: (CKI)	289
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1506 ctg gtg ggg ttc agt ctc agc cgg gtt cgg tct ggc aga gtt cgc tcc 1506 ctg gtg ggg ttc agt ctc agc cgg gtt cgg tct ggc aga gtt cgc tcc 1507 Leu Val Gly Phe Ser Leu Ser Arg Val Arg Ser Gly Arg Val Arg Ser 90 95	
1507 Leu Val Gly Phe Ser Leu Ser Arg Val 429	337
1507 Leu Val Gly Phe Set 25 90 90 1508 80 85 1508 80 85 1509 tat tca acc cgg gat ttc cag gac tgc cct ctc cag aaa aac agt agc 1509 tat tca acc cgg gat ttc cag gac tgc cct ctc cag aaa aac agt agc 1509 tat tca acc cgg gat ttc cag gac tgc cct ctc cag aaa aac agt agc 1509 tat tca acc cgg gat ttc cag gac tgc cct ctc cag aaa aac agt agc 1509 tat tca acc cgg gat ttc cag gac tgc cct ctc cag aaa aac agt agc 1509 tat tca acc cgg gat ttc cag gac tgc cct ctc cag aaa aac agt agc 1509 tat tca acc cgg gat ttc cag gac tgc cct ctc cag aaa aac agt agc 1509 tat tca acc cgg gat ttc cag gac tgc cct ctc cag aaa aac agt agc 1509 tat tca acc cgg gat ttc cag gac tgc cct ctc cag aaa aac agt agc 1509 tat tca acc cgg gat ttc cag gac tgc cct ctc cag aaa aac agt agc 1509 tat tca acc cgg gat ttc cag gac tgc cct ctc cag aaa aac agt agc 1509 tat tca acc cgg gat ttc cag gac tgc cct ctc cag aaa aac agt agc 1509 tat tca acc cgg gat ttc cag gac tgc cct ctc cag aaa aac agt agc 1509 tat tca acc cgg gat ttc cag gac tgc cct ctc cag aaa aac agt agc 1509 tat tca acc cgg gat ttc cag gac tgc cct ctc cag aaa aac agt agc 1509 tat tca acc cgg gat ttc cag gac tgc cct ctc cag aaa aac agt agc 1509 tat tca acc cgg gat ttc cag gac tgc cct ctc cag aaa aac agt agc 1509 tat tca acc cgg gat ttc cag gac tgc cct ctc cag acc acc acc acc acc acc acc acc ac	557
1500 tat toa acc cgg gat ttc cag gac tyc cos bro Leu Gln Lys Asn Ser Ser	
1508 80 1509 tat tca acc cgg gat ttc cag gac tgc cct ctc cag add adc dyb sign of the second	385
1510 Tyr Ser Thr Alg Asp 100 105 100 100 105 1511 1512 agt ttc ctg gtc ctg ttc ctc atc aac acc aag gat ctg cag gtc cag 1512 agt ttc ctg gtc ctg ttc ctc atc aac acc aag gat ctg cag Gln Val Gln 125	303
1511 1512 agt ttc ctg gtc ctg ttc ctc atc aac acc aag gat ctg ctg st	
1512 age the day Val Leu Phe Leu Ile Ash Illi Lys 125	4 2 2
1513 Sel File Lea 115	433
1513 Ser Phe Leu Val Hed 120 1514 115 120 1514 120 1515 gtg cgg aag tat gga gag cag aag acg ttg ttt atc ttt ccc ggg ctc 1515 gtg cgg aag tat gga gag cag aag acg ttg ttt atc ttt ccc ggg ctc 1515 gtg cgg aag tat gga gag cag aag acg ttg ttt atc ttt ccc ggg ctc	
1514 1515 gtg cgg aag tat gga gag cag aag acg ttg ttt atc ttt ccc 933 1515 gtg cgg aag tat gga gag cag aag acg ttg ttt atc ttt ccc 933 1515 gtg cgg aag tat gga gag cag aag acg ttg ttt atc ttt ccc 933 Leu 1515 gtg cgg aag tat gga gag cag aag acg ttg ttt atc ttt ccc 933 Leu 1515 gtg cgg aag tat gga gag cag aag acg ttg ttt atc ttt ccc 933 Leu 1515 gtg cgg aag tat gga gag cag aag acg ttg ttt atc ttt ccc 933 Leu 1515 gtg cgg aag tat gga gag cag aag acg ttg ttt atc ttt ccc 933 Leu 1515 gtg cgg aag tat gga gag cag aag acg ttg ttt atc ttt ccc 933 Leu 1515 gtg cgg aag tat gga gag cag aag acg ttg ttt atc ttt ccc 933 Leu 1515 gtg cgg aag tat gga gag cag aag acg ttg ttt atc ttt ccc 933 Leu 1515 gtg cgg cgg aag tat gga gag cag aag acg ttg ttt atc ttt ccc 933 Leu 1515 gtg cgg cag aag tat gga gag cag aag acg ttg ttt atc ttt ccc 933 Leu 1515 gtg cgg cag aag cag aag acg ttg ttt atc ttt ccc 933 Leu 1515 gtg cgg cag aag cag aag acg ttg ttt atc ttt ccc 933 Leu 1515 gtg cgg cag aag cag aag acg ttg ttt atc ttt ccc 933 Leu 1515 gtg cgg cag aag acg ttg ttt atc ttt ccc 933 Leu 1515 gtg cgg cag aag cag aag acg ttg ttt atc ttt ccc 933 Leu 1515 gtg cgg cag aag cag aag acg ttg ttt atc ttt ccc 933 Leu 1515 gtg cgg cag aag acg ttg ttt atc ttt ccc 933 Leu 1515 gtg cgg cag aag cag aag acg ttg ttt atc ttt ccc 933 Leu 1515 gtg cgg cag aag cag aag acg ttg ttt atc ttt ccc 933 Leu 1515 gtg cgg cag aag acg ttg ttt atc ttt ccc 933 Leu 1515 gtg cgg cag aag acg ttg ttt atc ttt ccc 933 Leu 1515 gtg cgg cag aag acg ttg ttt atc ttt ccc 933 Leu 1515 gtg cgg cag aag acg ttg ttt atc ttt ccc 933 Leu 1515 gtg cgg cag aag cag aag acg ttg ttt atc ttt ccc 933 Leu 1515 gtg cgg cag aag acg cag aag acg ttg ttt atc ttt ccc 933 Leu 1515 gtg cgg cag acg acg acg acg acg acg acg ac	. 0 1
1516 Val Alg 170 135 130 200 and CCa Caq gcc aca	481
1517 150 and goa coc toc aga coa ggg ctc cog day cou bro lys pro Gln Ala Thr	
1516 Val Arg Lys Tyr Gry 135 1517 130 1518 ctc ccg gaa gca ccc tcc aaa cca ggg ctc ccg aag cca cag gcc aca 1518 ctc ccg gaa gca ccc tcc aaa cca ggg ctc ccg aag cca cag gcc aca 1519 Leu Pro Glu Ala Pro Ser Lys Pro Gly Leu Pro Lys Pro Gln Ala Thr 1519 Leu Pro Glu Ala Pro Ser Lys Pro Gly Leu Pro Lys Pro Gln Ala Thr 1519 Leu Pro Glu Ala Pro Ser Lys Pro Gly Leu Pro Lys Pro Gln Ala Thr	
1519 Leu Pro Giu Alu 150	529
1519 Leu Pro Glu Ala 110 150 150 1520 145 1521 gtc ccc cgc aag gtg gat ggc gga ggg acc tct gca gcc agc aag ccc 1521 gtc ccc cgc aag gtg gat ggc gga ggg acc tct gca gcc agc aag ccc 1522 Val Pro Arg Lys Val Asp Gly Gly Thr Ser Ala Ala Ser Lys Pro 175 1522 Val Pro Arg Lys Val Asp Gly Gly Gly Thr Ser Ala Ala Ser Lys Pro 175 165 170 170 175 175 175 175 175 175 175 175 175 175	
1521 gtc ccc cgc dady gas Asp Gly Gly Gly Thr Ser Ala Ala Sel 275	
1522 Val Pro Arg Lys Val Asp 527 170	577
1523 160 atg att cag ggt cct agt ggg aag gdc lys ASD	
1522 Val Pro Arg Lys Val 1165 1523 160 165 1524 aag toa aca coc goa gtg att cag ggt cot agt ggg aag gac aag gac 1524 aag toa aca coc goa gtg att cag ggt cot agt ggg aag gac aag gac 1524 aag toa aca coc goa gtg att cag ggt cot agt ggg aag gac aag gac	
1523 160 1524 aag tca aca ccc gca gtg att cag ggt cct agt ggg dag gdc aa) 1524 aag tca aca ccc gca gtg att cag ggt cct agt ggg dag gdc aa) 1524 aag tca aca ccc gca gtg att cag ggt cct agt ggg dag gdc aa) 1524 aag tca aca ccc gca gtg att cag ggt cct agt ggg dag gdc aa) 1525 Lys Ser Thr Pro Ala Val Ile Gln Gly Pro Ser Gly Lys Asp 180 185	625
1525 Lys Ser Thi Fio Ala 180 1526 1527 ctg gtg ttg ggc ctg agc cac ctc aac aac tcc tac aac ttc agt ttc 1527 ctg gtg ttg ggc ctg agc cac ctc aac aac tcc tac aac ttc agt ttc 1527 ctg gtg ttg ggc ctg agc cac ctc aac aac tcc tac aac ttc agt ttc	
1527 ctg gtg ttg ggc ctg agc the Asn Asn Ser Tyr Asn Pne Ser The	
1526 1527 ctg gtg ttg ggc ctg agc cac ctc aac aac tcc tac aac tcc aac aa	673
1528 Leu Val Leu Gly Hea 200 1529 1529 1530 cac gtg gtg atc ggc tct cag gcg gaa gaa ggc cag tac agc ctg aac 1530 cac gtg gtg atc ggc tct cag gcg gaa gaa ggc cag tac agc ctg aac 1530 cac gtg gtg atc ggc tct cag gcg gaa gaa ggc cag tac agc ctg aac 1530 cac gtg gtg atc ggc tct cag gcg gaa gaa ggc cag tac agc ctg aac	
1530 cac gtg gtg atc ggc tct cag gtg Glu Glu Gly Gln Tyr Ser Leu Asn	
1529 1530 cac gtg gtg atc ggc tct cag gcg gaa gaa ggc cag tac age sof 1530 cac gtg gtg atc ggc tct cag gcg gaa gaa ggc cag tac age sof 1530 cac gtg gtg atc ggc tct cag gcg gaa gaa ggc cag tac age sof 1530 cac gtg gtg atc ggc atc gac acc gac gac gat gca tcc gac	721
1532 210 at a cca gga aag gag cat cca ttc gac	, 2-
1531 His Val Val Tie Gry 215 215 1532 216 1532 217 1533 ttc cac aac tgc aac aat tca gtg cca gga aag gag cat cca ttc gac gga tcac aac tgc aac aat tca gtg cca gga aag gag cat cca ttc gac gac gac gac gac gac gac gac gac ga	
1532 210 1532 210 1533 ttc cac aac tgc aac aat tca gtg cca gga aag gag cat cca gea a	769
1534 Phe His Ash Cys Ash 230 230 1535 225 230 230 1536 atc acg gtg atg atc cgg gag aag aac ccc gat ggc ttc ctg tcg gca 1536 atc acg gtg atg atc cgg gag aag aac ccc gat ggc ttc ctg tcg gca 255 255 255	703
1336 atc acg gtg atg atc cgg gag aag aac coo strain and acg gtg atc acg gtg atg atc acg gtg atc acg gtg atg atc cgg gag aag aac coo strain acg gtg atc acg gtg atg atc acg gtg	
1535 225 1536 atc acg gtg atg atc cgg gag aag aac ccc gat ggc ttc ccg Ser Ala 1536 atc acg gtg atg atc cgg gag aag aac ccc gat ggc ttc ccg Ser Ala 1537 Ile Thr Val Met Ile Arg Glu Lys Asn Pro Asp Gly Phe Leu Ser Ala 255 245	817
1537 THE THE 245	01/
1537 Ile Thr Val Met 125 245 1538 240 245 1539 gcg gag atg ccc ctt ttc aag ctc tac atg gtc atg tcc gcc tgc ttc 1539 gcg gag atg ccc ctt ttc aag ctc tac atg ycc atg tcc gcc tgc ttc 1539 gcg gag atg ccc ctt ttc aag ctc tac atg ycc atg tcc gcc tgc ttc 270	
1538 240 1539 gcg gag atg ccc ctt ttc aag ctc tac atg gtc atg tcc gcc syr 1539 gcg gag atg ccc ctt ttc aag ctc tac atg gtc atg tcc gcc syr 1539 gcg gag atg ccc ctt ttc aag ctc tac atg gtc atg tcc gcc syr 1539 gcg gag atg ccc ctt ttc aag ctc tac atg gtc atg tcc gcc syr 1538 240 260 260 260 260	0.65
260 260 and agg aac acg tac	865
1540 Ala Glu Met Pro led 265 1541 1542 ctg gcc gct ggc atc ttc tgg gtg tcc atc ctc tgc agg aac acg tac 1542 ctg gcc gct ggc atc ttc tgg gtg tcc atc ctc tgc agg aac acg tac 1542 ctg gcc gct ggc atc ttc tgg gtg tcc atc ctc tgc agg aac acg tac 1543 Leu Ala Ala Gly Ile Phe Trp Val Ser Ile Leu Cys Arg Asn Thr Tyr 285 280 280 280	
1542 Ctg gcc gcc glv Ile Phe Trp Val Ser Ile Leu Cyc 285	
1543 Leu Ala Ala GIJ 280 275 1544 275 1545 agc gtc ttc aag atc cac tgg ctc atg gcg gcc ttg gcc ttc acc aag 1545 agc gtc ttc aag atc cac tgg ctc atg gcg gcc ttg gcc ttc acc aag 1545 agc gtc ttc aag atc cac tgg ctc atg gcg gcc ttg gcc ttc acc aag 1545 agc gtc ttc aag atc cac tgg ctc atg gcg gcc ttg gcc ttc acc aag 1548 agc gtc ttc acc aag	913
1544 the the agg ate cae tgg etc atg geg get Lou Ala Phe Thr Lys	
1545 agc gtc ttc day are His Trp Leu Met Ala Ala Leu Met Ala 200	
1546 Ser Val Pile Lys 122	961
1547 250 total action and action and the action and the action and the action action and the action	
1546 Ser Val Phe Lys Tro 295 1547 290 295 1548 agc atc tct ctc ctc ttc cac agc atc aac tac tac ttc atc aac agc 1548 agc atc tct ctc ctc ttc cac agc atc aac tac tac ttc atc aac agc 1549 Ser Ile Ser Leu Leu Phe His Ser Ile Asn Tyr Tyr Phe Ile Asn Ser 1549 Ser Ile Ser Leu Leu Phe His Ser Ile Asn Tyr Tyr Phe Ile Asn Ser 1549 Ser Ile Ser Leu Leu Phe His Ser Ile Asn Tyr Tyr Phe Ile Asn Ser 1549 Ser Ile Ser Leu Leu Phe His Ser Ile Asn Tyr Tyr Phe Ile Asn Ser 1549 Ser Ile Ser Leu Leu Phe His Ser Ile Asn Tyr Tyr Phe Ile Asn Ser 1549 Ser Ile Ser Leu Leu Phe His Ser Ile Asn Tyr Tyr Phe Ile Asn Ser 1549 Ser Ile Ser Leu Leu Phe His Ser Ile Asn Tyr Tyr Phe Ile Asn Ser 1549 Ser Ile Ser Leu Leu Phe His Ser Ile Asn Tyr Tyr Phe Ile Asn Ser 1549 Ser Ile Ser Leu Leu Phe His Ser Ile Asn Tyr Tyr Phe Ile Asn Ser 1549 Ser Ile Ser Leu Leu Phe His Ser Ile Asn Tyr Tyr Phe Ile Asn Ser 1549 Ser Ile Ser Leu Leu Phe His Ser Ile Asn Tyr Tyr Phe Ile Asn Ser 1549 Ser Ile Ser Leu Leu Phe His Ser Ile Asn Tyr Tyr Phe Ile Asn Tyr Tyr Phe Ile Asn Ser 1549 Ser Ile Ser Leu Leu Phe His Ser Ile Asn Tyr Tyr Phe Ile Asn Tyr Tyr Tyr	
1549 Ser lie Ser hed 2310	1009
1549 Ser Ile Ser Leu Loca 1310 1550 305 310 1551 cag ggc cac ccc atc gaa ggc ctt gcc gtc atg tac tac atc gca cac 1551 cag ggc cac ccc atc gaa ggc ctt gcc gtc atg tac tac atc gca cac 1551 cag ggc cac ccc atc gaa ggc ctt gcc gtc atg tac tac atc gca cac 1551 cag ggc cac ccc atc gaa ggc ctt gcc gtc atg tac tac atc gca cac 1551 cag ggc cac ccc atc gaa ggc ctt gcc gtc atg tac tac atc gca cac 1551 cag ggc cac ccc atc gaa ggc ctt gcc gtc atg tac tac atc gca cac 1551 cag ggc cac ccc atc gaa ggc ctt gcc gtc atg tac tac atc gca cac 1551 cag ggc cac ccc atc gaa ggc ctt gcc gtc atg tac tac atc gca cac 1551 cag ggc cac ccc atc gaa ggc ctt gcc gtc atg tac tac atc gca cac 1551 cag ggc cac ccc atc gaa ggc ctt gcc gtc atg tac tac atc gca cac 1551 cag ggc cac ccc atc gaa ggc ctt gcc gtc atg tac tac atc gca cac 1551 cag ggc cac ccc atc gaa ggc ctt gcc gtc atg tac tac atc gca cac 1551 cag ggc cac ccc atc gaa ggc ctt gcc gtc atg tac tac atc gca cac 1551 cag ggc cac ccc atc gaa ggc ctt gcc gtc atg tac tac atc gca cac 1551 cag ggc cac ccc atc gaa ggc ctt gcc gcc gtc atg tac tac atc gca cac 1551 cag ggc cac ccc atc gaa ggc ctt gcc gtc atg tac tac atc gca cac 1551 cag ggc cac ccc atc gaa ggc ctt gcc gtc atg tac tac atc gca cac 1551 cag ggc gcc gcc gcc gcc gcc gcc gcc gcc	
1551 cag ggc cac coc ato gam 55	
1550 305 1551 cag ggc cac ccc atc gaa ggc ctt gcc gtc atg tac tac deb y 1551 cag ggc cac ccc atc gaa ggc ctt gcc gtc atg tac tac deb y 1552 Gln Gly His Pro Ile Glu Gly Leu Ala Val Met Tyr Tyr Ile Ala His 335 330 325	1057
1552 Gln Gly HIS FIG 125 325 1553 320 1554 ctg ctg aag ggc gcc ctc ctc ttc atc acc atc gcc ctg att ggc tca	
1554 ctg ctg aag ggc gcc ccc -	

DATE: 08/06/2002 TIME: 12:45:44 RAW SEQUENCE LISTING PATENT APPLICATION: US/10/030,306

Input Set : A:\661926.txt
Output Set: N:\CRF3\08062002\J030306.raw

Output Set: N:\CRF3\08062002\J030300.Tam	
Output Set. W. C.	
350	1105
	1103
1556 to and tac qtc ctg tcg gat add gus Lys Lys Val	
1557 ggc tgg gcc ttc atc ady tur Val Leu Ser Asp Lys Glu 27	1153
	1153
355 agg atg cag gtc ctg gcc add ggs Val Ala Tyr Ile	
1557 ggc cgg Ala Phe Ile Lys Tyr Val 360 1558 Gly Trp Ala Phe Ile Lys Tyr Val 360 1559 1560 ttt ggg atc gtg atc ccc atg cag gtc ctg gcc aac gtg gcc tac atc 1561 Phe Gly Ile Val Ile Pro Met Gln Val Leu Ala Asn Val Ala Tyr Ile 1561 Phe Gly Ile Val Ile Pro Met Gln Val Leu Ala Asn Val Ala Tyr Ile 370 370 370 370 370 370 370 370 370 370	1001
	1201
1562 370 gag gag ggc gcc agc gac tac gag tau Yal Leu Trp Lys	
1560 tet 933 1561 phe Gly Ile Val Ile Pro Met Gli 375 1562 1563 atc atc gag tcc cgc gag gaa ggc gcc agc gac tac gtg ctg tgg aag 1564 Ile Ile Glu Ser Arg Glu Glu Gly Ala Ser Asp Tyr Val Leu Trp Lys 395 1564 Ile Ile Glu Ser Arg Glu Gly Ala Ser Asp Tyr Val Leu Trp Lys 395	
	1249
1564 He	
1566 gag att ttg ttc ctg gtg gdc The Leu Ile Cys Cys Gly Ald 125	7
	1297
1568 400 at a cag cat at a cag gat gag tet gag. Thr Asp	
1569 ccc qta gtc tgg tcc atc cgg to 1569 ccc qta gtc tgg tcc atc cgg 430	
	1345
420 420 aag ctg aag ctg tic cys His Tyr	
1572 ggg aag gtg gca gtg add ctg st	
	1393
1572 ggg ddg Sval Ala Val Asn Leu Ald 27 1573 Gly Lys Val Ala Val Asn Leu Ald 27 440 435 1574 1575 tat gtc atg gtc atc tgc tac gtc tac ttc acc cgc atc atc gcc atc 1576 Tyr Val Met Val Ile Cys Tyr Val Tyr Phe Thr Arg Ile Ile Ala Ile 450 450 450 450 450 450 450 45	
1575 tat gtc atg gtc atc tgc tuc 35 Tyr Phe Thr Arg 116 116	1
	1441
1576 Tyr Val Met Val Ile Cys Tyr Val 460 1576 Tyr Val Met Val Ile Cys Tyr Val 455 1577	
1578 ctg ctg cag gtg gct gtg ccc phe Gln Trp Gln Trp Leu 172	
	1489
1580 465 acc ctg gcc ttc ttc gtg ctc acg 939	
1581 ttg gtg gag ggc tcc acc ces 5	
	1537
1583 480 and and cog tac ctg cag ctg coo all Glu Asp	
1582 Led 485 1583 480 1584 ttc cag ccc aca ggg aac aac ccg tac ctg cag ctg ccc cag gdg 35 1584 ttc cag ccc aca ggg aac aac ccg tac ctg cag ctg ccc cag gdg 35 1585 Phe Gln Pro Thr Gly Asn Asn Pro Tyr Leu Gln Leu Pro Gln Glu Asp 510 1585 Phe Gln Pro Thr Gly Asn Asn Pro Tyr Leu Gln Leu Pro Gln Glu Asp 505 1586 Phe Gln Pro Thr Gly Asn Asn Pro Tyr Leu Gln Leu Pro Gln Glu Asp 500	1505
	1585
1586 atg gag caa gta atg acg gac too gay Phe Arg	
1584 the Gln Pro Thr Gly Ash Ash TTO 505 1585 Phe Gln Pro Thr Gly Ash Ash TTO 505 1586 500 acg gac tct ggg ttc cgg 1586 1587 gag gag gat gtt cag atg gag caa gta atg acg gac tct ggg ttc cgg 1587 gag gag gat gtt cag atg gag caa gta atg acg gac tct ggg ttc cgg 1587 gag gag gat gtt cag atg gag caa gta atg acg gac tct ggg ttc cgg 1587 gag gag gat gtt cag atg sta	1633
	1033
1589 515 and gtc aac aaa aca gcc agc gg Arg Glu Leu Leu	
1588 Glu Gra 515 1589 1590 gaa ggc ctc tcc aaa gtc aac aaa aca gcc agc ggg cgg gaa ccg 1590 gaa ggc ctc tcc aaa gtc aac aaa aca gcc agc ggg cgg gaa ccg 1590 gaa ggc ctc tcc aaa gtc aac aaa aca gcc agc ggg cgg gaa ccg 540 530 530 530 530 530 530 530	1690
1591 Glu Gly Leu Ser Lys Val Asia 575 1591 Glu Gly Leu Ser Lys Val Asia 575 1592 1593 tgatcac ctccacatct cagaccaaag ggtcgtcctc ccccagacatt tctcactcct 1593 tgatcac ctccacatct cagaccaaag ggtcgtcgtcctc catgtggacc agggggccca	
1593 tgatcac ctccacatct cagada ggagggggtc cacgos,	CC 1010
1592 530 1592 530 1593 tgatcac ctccacatct cagaccaaag ggtcgtcctc ccccagcatt tcttadess 1593 tgatcac ctccacatct cagaccaaag ggtcgtcctc catgtggacc aggcgccc 1594 gcccttcttc cacagcgtat gtggggaggt ggagggggtc catgtggacc tcctcccc 1595 ctccccggga ccccggttcc cggacaagcc catttggaag aagagtccct tcctcccc 1596 aaatattggg cagccctgtc cttaccccgg gaccacccct cccttccagc tatgtgtac 1596 aaatattggg cagccctgtc cttaccccgg gaccacccct cccttccagc tatgtgtac	ca 1870
1595 ctccccggga ccccggtttc off	1892
1596 aaatattggg cagccctycc o-	
1596 aaatattggg cugoot 1597 ataatgacca atctgtttgg ct	
E> 1599 /1	
E - > 1601 1	
$E - > 1599 \stackrel{1}{1}$ $E - > 1601 \stackrel{1}{1}$ $E - > 1602 \stackrel{1}{1}$ $= - > 1602 \stackrel{1}{1}$	

VERIFICATION SUMMARY

DATE: 08/06/2002 TIME: 12:45:45

PATENT APPLICATION: US/10/030,306

Input Set : A:\661926.txt

Output Set: N:\CRF3\08062002\J030306.raw L:11 M:270 C: Current Application Number differs, Replaced Current Application No

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:1162 M:254 E: No. of Bases conflict, LENGTH:Input:1550 Counted:1540 SEQ:25

L:1599 M:254 E: No. of Bases conflict, this line has no nucleotides.

L:1602 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1

L:1602 M:252 E: No. of Seq. differs, <211> LENGTH:Input:1892 Found:1893 SEQ:30